```
Connecting via Winsock to STN



Welcome to STN International!  Enter x:x

LOGINID:ssptajsl1623

PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2


* * * * * * * * * *   Welcome to STN International   * * * * * * * * * *

 NEWS  1          Web Page for STN Seminar Schedule - N. America
 NEWS  2  AUG 15  CAOLD to be discontinued on December 31, 2008
 NEWS  3  OCT 07  EPFULL enhanced with full implementation of EPC2000
 NEWS  4  OCT 07  Multiple databases enhanced for more flexible patent
                  number searching
 NEWS  5  OCT 22  Current-awareness alert (SDI) setup and editing
                  enhanced
 NEWS  6  OCT 22  WPIDS, WPINDEX, and WPIX enhanced with Canadian PCT
                  Applications
 NEWS  7  OCT 24  CHEMLIST enhanced with intermediate list of
                  pre-registered REACH substances
 NEWS  8  NOV 21  CAS patent coverage to include exemplified prophetic
                  substances identified in English-, French-, German-,
                  and Japanese-language basic patents from 2004-present
 NEWS  9  NOV 26  MARPAT enhanced with FSORT command
 NEWS 10  NOV 26  MEDLINE year-end processing temporarily halts
                  availability of new fully-indexed citations
 NEWS 11  NOV 26  CHEMSAFE now available on STN Easy
 NEWS 12  NOV 26  Two new SET commands increase convenience of STN
                  searching
 NEWS 13  DEC 01  ChemPort single article sales feature unavailable
 NEWS 14  DEC 12  GBFULL now offers single source for full-text
                  coverage of complete UK patent families
 NEWS 15  DEC 17  Fifty-one pharmaceutical ingredients added to PS

 NEWS EXPRESS JUNE 27 08 CURRENT WINDOWS VERSION IS V8.3,
              AND CURRENT DISCOVER FILE IS DATED 23 JUNE 2008.

 NEWS HOURS    STN Operating Hours Plus Help Desk Availability
 NEWS LOGIN    Welcome Banner and News Items
 NEWS IPC8     For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that
specific topic.

  All use of STN is subject to the provisions of the STN Customer
  agreement.  Please note that this agreement limits use to scientific
  research.  Use for software development or design or implementation
  of commercial gateways or other similar uses is prohibited and may
  result in loss of user privileges and other penalties.

* * * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * * *
```

FILE 'HOME' ENTERED AT 13:06:36 ON 05 JAN 2009

=> b reg
COST IN U.S. DOLLARS

	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.22	0.22

FILE 'REGISTRY' ENTERED AT 13:06:49 ON 05 JAN 2009
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES: 4 JAN 2009 HIGHEST RN 1092523-63-1
DICTIONARY FILE UPDATES: 4 JAN 2009 HIGHEST RN 1092523-63-1

New CAS Information Use Policies, enter HELP USAGETERMS for details.

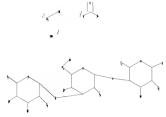
TSCA INFORMATION NOW CURRENT THROUGH July 5, 2008.

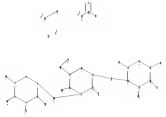
Please note that search-term pricing does apply when
conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document. For information
on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=>
Uploading C:\Documents and Settings\jlaul\My Documents\10501786 - h pylori
saccharide\FAOM\genus.str





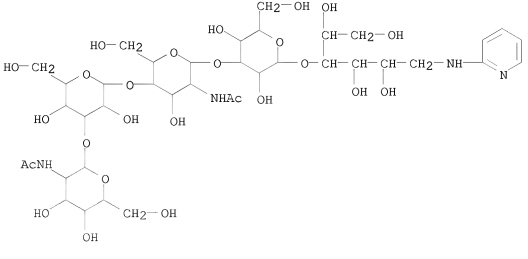
chain nodes :
19 20 21 22 23 27 28 30 31 32 33 34 35 38 39 40 41 42 43 44 45
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
chain bonds :
1-43 2-44 3-28 5-20 6-40 7-20 8-42 9-30 11-19 12-39 13-41 14-19 15-27
17-45 18-38 21-22 30-31 32-33 33-34 33-35
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12 13-14 13-18
14-15 15-16 16-17 17-18
exact/norm bonds :
1-2 1-6 1-43 2-3 2-44 3-4 3-28 4-5 5-6 5-20 6-40 7-8 7-12 7-20 8-9
8-42 9-10 10-11 11-12 11-19 12-39 13-14 13-18 13-41 14-15 14-19 15-16
15-27 16-17 17-18 17-45 18-38 32-33 33-35
exact bonds :
9-30 21-22 30-31 33-34

G1:[*1],[*2]

G2:OH,[*3]

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:CLASS
20:CLASS 21:CLASS 22:CLASS 23:CLASS 27:CLASS 28:CLASS 30:CLASS 31:CLASS
32:CLASS 33:CLASS 34:CLASS 35:CLASS 38:CLASS 39:CLASS 40:CLASS 41:CLASS
42:CLASS 43:CLASS 44:CLASS 45:CLASS

```
L1      STRUCTURE UPLOADED

=> d l1
L1 HAS NO ANSWERS
L1              STR

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY -  AVAILABLE VIA OFFLINE PRINT *

Structure attributes must be viewed using STN Express query preparation.


=> s l1 sss sam
SAMPLE SEARCH INITIATED 13:07:11 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -     1969 TO ITERATE

100.0% PROCESSED     1969 ITERATIONS                                49 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:        36719 TO    42041
PROJECTED ANSWERS:             560 TO     1400

L2           49 SEA SSS SAM L1

=> d l2 scan

L2   49 ANSWERS   REGISTRY  COPYRIGHT 2009 ACS on STN
IN   D-Glucitol, O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→3)-
     O-β-D-galactopyranosyl-(1→4)-O-2-(acetylamino)-2-deoxy-β-
     D-glucopyranosyl-(1→3)-O-β-D-galactopyranosyl-(1→4)-1-
     deoxy-1-(2-pyridinylamino)- (9CI)
MF   C39 H64 N4 O25
```

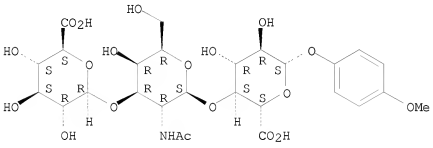



```
**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**
```

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L2 49 ANSWERS REGISTRY COPYRIGHT 2009 ACS on STN
IN β-D-Glucopyranosiduronic acid, 4-methoxyphenyl
    O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-
    β-D-galactopyranosyl-(1→4)-, disodium salt (9CI)
MF C27 H37 N O19 . 2 Na

Absolute stereochemistry. Rotation (-).



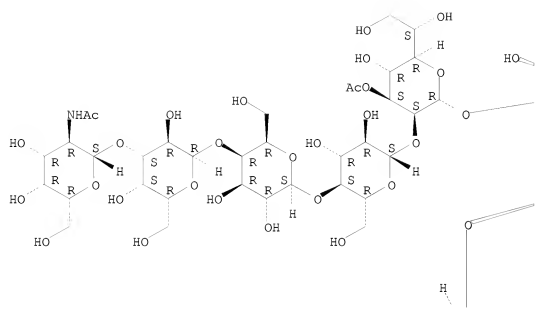
●2 Na

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

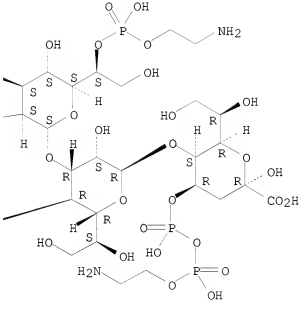
L2 49 ANSWERS REGISTRY COPYRIGHT 2009 ACS on STN
IN α-D-manno-2-Octulopyranosonic acid,
    O-2-(acetylamino)-2-deoxy-β-D-galactopyranosyl-(1→3)-O-α-
    D-galactopyranosyl-(1→4)-O-β-D-galactopyranosyl-(1→4)-O-
    β-D-glucopyranosyl-(1→2)-O-3-O-acetyl-L-glycero-α-D-
    manno-heptopyranosyl-(1→2)-O-6-O-[(2-aminoethoxy)hydroxyphosphinyl]-
    L-glycero-α-D-manno-heptopyranosyl-(1→3)-O-[6-O-[hydroxy[2-
    (trimethylammonio)ethoxy]phosphinyl]-β-D-glucopyranosyl-(1→4)]-
    O-L-glycero-α-D-manno-heptopyranosyl-(1→5)-3-deoxy-, inner
    salt, 4-[P'-(2-aminoethyl) dihydrogen diphosphate] (9CI)
MF C74 H132 N4 O65 P4

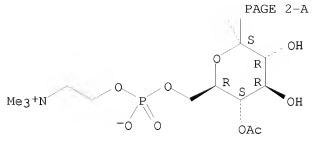
Absolute stereochemistry.

PAGE 1-A



PAGE 1-B





HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):end

=> logoff hold

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.48	0.70

SESSION WILL BE HELD FOR 120 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 13:07:37 ON 05 JAN 2009

Connecting via Winsock to STN

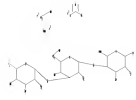
Welcome to STN International! Enter x:x

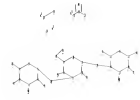
LOGINID:ssptajsl1623

PASSWORD:
* * * * * * RECONNECTED TO STN INTERNATIONAL * * * * * *
SESSION RESUMED IN FILE 'REGISTRY' AT 13:12:19 ON 05 JAN 2009
FILE 'REGISTRY' ENTERED AT 13:12:19 ON 05 JAN 2009

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.48	0.70

=>
Uploading C:\Documents and Settings\jlaul\My Documents\10501786 - h pylori saccharide\FAOM\genus 2.str





chain nodes :
19 20 21 22 23 27 29 30 31 32 33 34 37 38 39 40 41 42 43 44 45
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
chain bonds :
1-42 2-43 3-27 5-20 6-39 7-20 8-41 9-29 11-19 12-38 13-40 14-19 15-45
17-44 18-37 21-22 29-30 31-32 32-33 32-34
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12 13-14 13-18
14-15 15-16 16-17 17-18
exact/norm bonds :
1-2 1-6 1-42 2-3 2-43 3-4 3-27 4-5 5-6 5-20 6-39 7-8 7-12 7-20 8-9
8-41 9-10 10-11 11-12 11-19 12-38 13-14 13-18 13-40 14-15 14-19 15-16
16-17 17-18 17-44 18-37 31-32 32-34
exact bonds :
9-29 15-45 21-22 29-30 32-33

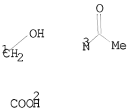
G1:[*1],[*2]

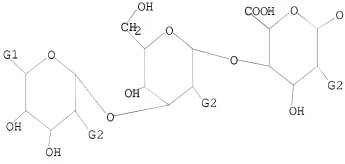
G2:OH,[*3]

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:CLASS
20:CLASS 21:CLASS 22:CLASS 23:CLASS 27:CLASS 29:CLASS 30:CLASS 31:CLASS
32:CLASS 33:CLASS 34:CLASS 37:CLASS 38:CLASS 39:CLASS 40:CLASS 41:CLASS
42:CLASS 43:CLASS 44:CLASS 45:CLASS

L3 STRUCTURE UPLOADED

=> d l3
L3 HAS NO ANSWERS
L3 STR





G1 [@1],[@2]
G2 OH,[@3]

Structure attributes must be viewed using STN Express query preparation.

=> s l3 sss sam
SAMPLE SEARCH INITIATED 13:13:06 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 668 TO ITERATE

100.0% PROCESSED 668 ITERATIONS 10 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 11810 TO 14910
PROJECTED ANSWERS: 11 TO 389

L4 10 SEA SSS SAM L3

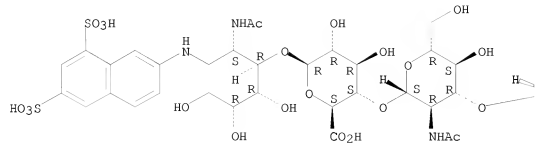
=> d l4 scan

L4 10 ANSWERS REGISTRY COPYRIGHT 2009 ACS on STN
IN D-Glucitol, O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-2-(acetylamino)-1,2-dideoxy-1-[(6,8-disulfo-2-

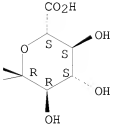
naphthalenyl)amino]-
MF C38 H53 N3 O28 S2

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



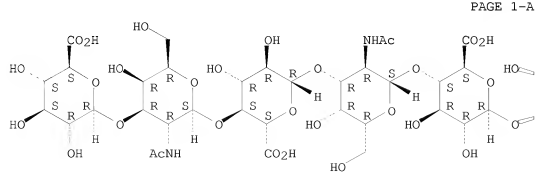
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

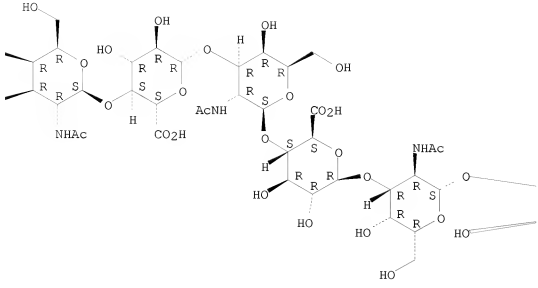
L4 10 ANSWERS REGISTRY COPYRIGHT 2009 ACS on STN
IN D-Galactose, [O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-galactopyranosyl-(1→4)]5-O-β-D-glucopyranuronosyl-(1→3)-2-(acetylamino)-2-deoxy-
MF C84 H128 N6 O67

Absolute stereochemistry.

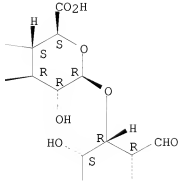
PAGE 1-A



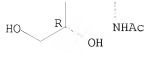
PAGE 1-B



PAGE 1-C



PAGE 2-C

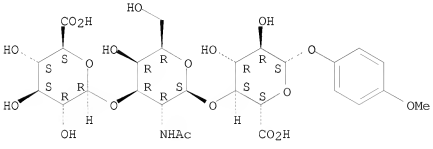


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L4 10 ANSWERS REGISTRY COPYRIGHT 2009 ACS on STN
IN β-D-Glucopyranosiduronic acid, 4-methoxyphenyl
    O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-
    β-D-galactopyranosyl-(1→4)-, disodium salt (9CI)
MF C27 H37 N O19 . 2 Na

Absolute stereochemistry. Rotation (-).



●2 Na

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):end

=> s l3 sss full
FULL SEARCH INITIATED 13:14:08 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 13721 TO ITERATE

100.0% PROCESSED 13721 ITERATIONS 115 ANSWERS
SEARCH TIME: 00.00.01

L5 115 SEA SSS FUL L3

=> b caplus
COST IN U.S. DOLLARS SINCE FILE ENTRY 187.32 TOTAL SESSION 187.54

FILE 'CAPLUS' ENTERED AT 13:14:14 ON 05 JAN 2009
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

FILE COVERS 1907 - 5 Jan 2009 VOL 150 ISS 2
FILE LAST UPDATED: 4 Jan 2009 (20090104/ED)

Caplus now includes complete International Patent Classification (IPC)
reclassification data for the third quarter of 2008.

Effective October 17, 2005, revised CAS Information Use Policies apply.
They are available for your review at:

http://www.cas.org/legal/infopolicy.html

=> s l5
L6 101 L5

=> s l6 and py<=2003
24034073 PY<=2003
L7 69 L6 AND PY<=2003

=> s l7 and (pylori or bind?)
15806 PYLORI
23 PYLORIS
15819 PYLORI
(PYLORI OR PYLORIS)
1366908 BIND?
L8 11 L7 AND (PYLORI OR BIND?)

=> d l8 1-11 ibib abs hitstr

L8 ANSWER 1 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2003:935832 CAPLUS
DOCUMENT NUMBER: 140:195095
TITLE: The Link Module from Ovulation- and Inflammation-associated Protein TSG-6 Changes Conformation on Hyaluronan *Binding*
AUTHOR(S): Blundell, Charles D.; Mahoney, David J.; Almond, Andrew; DeAngelis, Paul L.; Kahmann, Jan D.; Teriete, Peter; Pickford, Andrew R.; Campbell, Iain D.; Day, Anthony J.
CORPORATE SOURCE: Department of Biochemistry, MRC Immunochemistry Unit, University of Oxford, Oxford, OK, OX1 3QU, USA
SOURCE: Journal of Biological Chemistry (*2003*), 278(49), 49261-49270
CODEN: JBCHA3; ISSN: 0021-9258
PUBLISHER: American Society for Biochemistry and Molecular Biology
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The solution structure of the Link module from human TSG-6, a hyaladherin with important roles in inflammation and ovulation, has been determined in both its free and hyaluronan-bound conformations. This reveals a well defined hyaluronan-*binding* groove on one face of the Link module that is closed in the absence of ligand. The groove is lined with amino acids that have been implicated in mediating the interaction with hyaluronan, including two tyrosine residues that appear to form essential intermol.

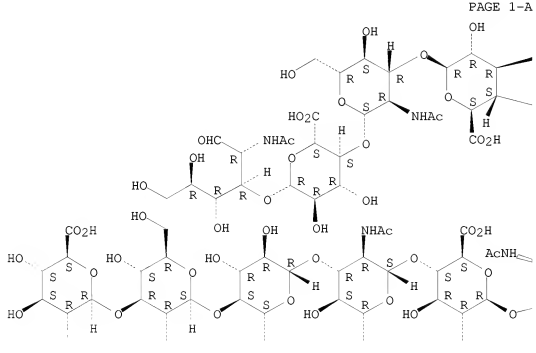
hydrogen bonds and two basic residues capable of supporting ionic interactions. This is the first structure of a non-enzymic hyaladherin in its active state, and identifies a ligand-induced conformational change that is likely to be conserved across the Link module superfamily. NMR and isothermal titration calorimetry expts. with defined oligosaccharides have allowed us to infer the min. length of hyaluronan that can be accommodated within the *binding* site and its polarity in the groove; these data have been used to generate a model of the complex formed between the Link module and a hyaluronan octasaccharide.

IT *57282-62-9* *57323-43-0D*, complexed with TSG-6
71058-16-7 *93957-10-9* *93957-11-0*
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(Tyr59 and Tyr78 residues in Link module from ovulation- and inflammation-associated protein TSG-6 play important role in hyaluronan *binding* though conformational transition and hydrogen bonding)

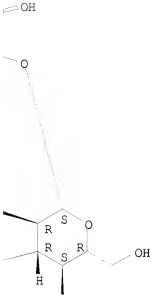
RN 57282-62-9 CAPLUS

CN D-Glucose, O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy- (CA INDEX NAME)

Absolute stereochemistry.



PAGE 1-B



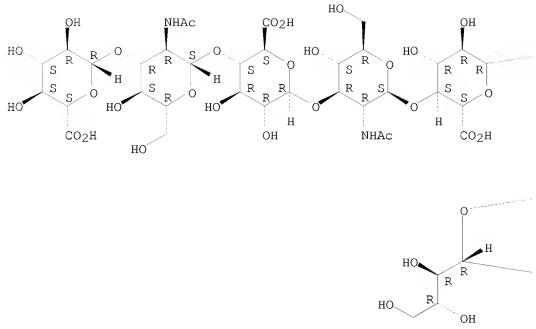
PAGE 2-A

PAGE 2-B

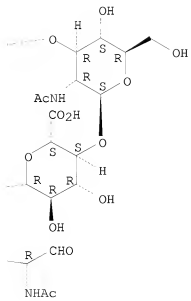
RN 57323-43-0 CAPLUS
CN D-Glucose, O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-2-(acetylamino)-2-deoxy- (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



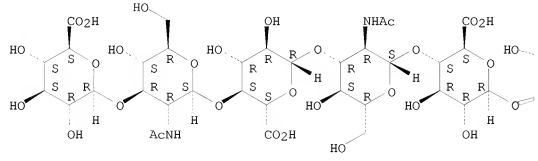
RN 71058-16-7 CAPLUS

CN D-Glucose, O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-

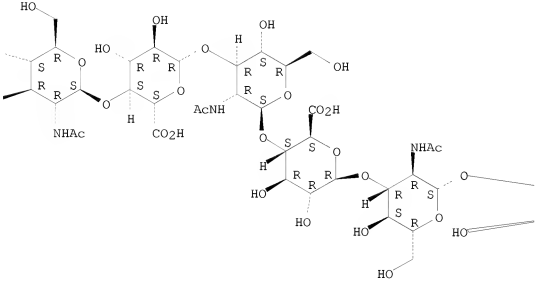
(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-
(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-
2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-
(1→3)-2-(acetylamino)-2-deoxy- (CA INDEX NAME)

Absolute stereochemistry.

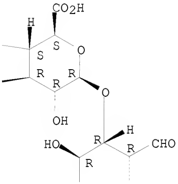
PAGE 1-A



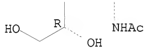
PAGE 1-B



PAGE 1-C



PAGE 2-C



RN 93957-10-9 CAPLUS

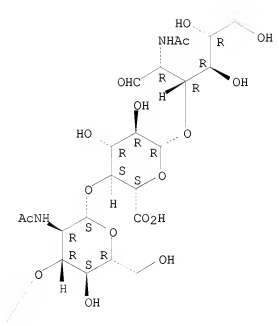
CN D-Glucose, O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-2-(acetylamino)-2-deoxy- (CA INDEX NAME)

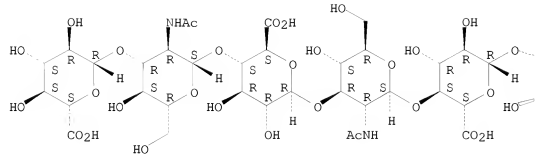
Absolute stereochemistry.

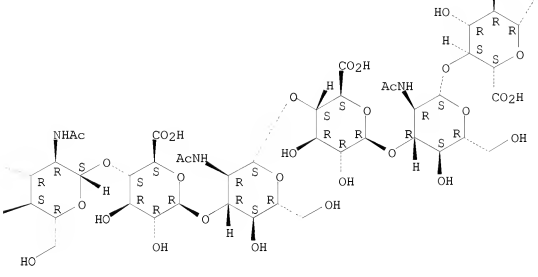
PAGE 1-B

OH

PAGE 1-C







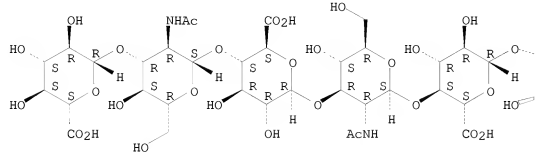
RN 93957-11-0 CAPLUS

CN D-Glucose, O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-

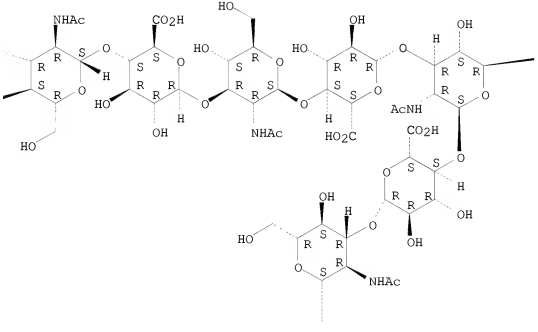
2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-
(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-
(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-
2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-
(1→3)-2-(acetylamino)-2-deoxy- (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

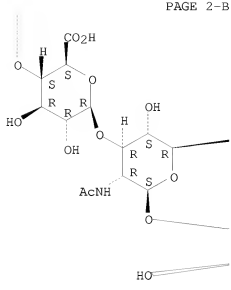


PAGE 1-B

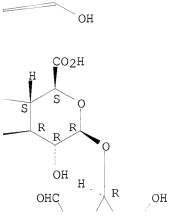


PAGE 1-C

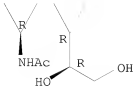
PAGE 2-B



PAGE 2-C



PAGE 3-C



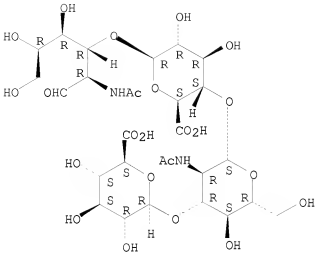
REFERENCE COUNT: 45 THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 2 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2003:819295 CAPLUS
DOCUMENT NUMBER: 140:146352
TITLE: Hyaluronate tetrasaccharide-Cu(II) interaction: A NMR study
AUTHOR(S): D'Auria, Gabriella; Flores, Germana; Falcigno, Lucia; Oliva, Romina; Vacatello, Manuela; Corsaro, Maria Michela; Parrilli, Michelangelo; Paolillo, Livio
CORPORATE SOURCE: Department of Chemistry, University "Federico II" of Naples, Naples, 80126, Italy
SOURCE: Biopolymers (*2003*), 70(2), 260-269
CODEN: BIPMAA; ISSN: 0006-3525
PUBLISHER: John Wiley & Sons, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The coordination of Cu(II) to a hyaluronate tetrasaccharide (HAt) was investigated in aqueous solution by 13C and 1H relaxation measurements at two magnetic fields, 9 and 14 T. The HAt interaction with the metal ion was monitored following the nuclear paramagnetic relaxation enhancements R1p and R2p produced by the copper addition The data anal. shows that the paramagnetic effect is differently experienced by the nuclei in different monosaccharide residues. A mol. model for the complex HAt-Cu(II) was built taking into account the exptl. data. The model shows the presence of two *binding* sites, both involving the carboxylate groups of the two glucuronic acid units. The first site, that best simulates the HA *binding* site, is located on the ligand core, while the second one is located on the terminal glucuronic acid residue. Both *binding* sites involve, in addition to the carboxylate groups, the O4 oxygens of the glucuronic acid residues.

IT *57282-61-8D*, copper complex
RL: PRP (Properties)
(NMR study of the hyaluronate tetrasaccharide-Cu(II) interaction)
RN 57282-61-8 CAPLUS
CN D-Glucose, O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-2-(acetylamino)-2-deoxy- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 3 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2002:596516 CAPLUS
DOCUMENT NUMBER: 137:353248
TITLE: Large-scale preparation, purification, and characterization of hyaluronan oligosaccharides from 4-mers to 52-mers
AUTHOR(S): Tawada, Akira; Masa, Takahiro; Oonuki, Yoji; Watanabe, Atsushi; Matsuzaki, Yuji; Asari, Akira
CORPORATE SOURCE: Central Research Laboratories, Seikagaku Corporation, Higshiyamato, 207-0021, Japan
SOURCE: Glycobiology (*2002*), 12(7), 421-426
CODEN: GLYCE3; ISSN: 0959-6658
PUBLISHER: Oxford University Press
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Hyaluronan (HA) was depolymd. by partial digestion with testicular hyaluronidase and separated into size-uniform HA oligosaccharides from 4-mers to 52-mers by anion exchange chromatog. after removal of the hyaluronidase. The purity and size of each HA oligosaccharide was confirmed by using HPLC analyses, FACE, and ESI-MS. 1H and 13C NMR assignments and elemental analyses were obtained for each HA oligosaccharide. Endotoxins, proteins, and DNA were absent or in trace amts. in these HA oligosaccharides. Gram/mg-scale hyaluronan oligosaccharides were obtained from 200 g of HA starting material. These pure, size-uniform, and large range of HA oligosaccharides will be available for investigating important biol. functions of HA, such as for the determination of the size(s) of HA oligosaccharides that induce angiogenesis or mediate inflammatory responses, and to interact with HA-*binding* proteins and receptors both in in vitro and in vivo studies.

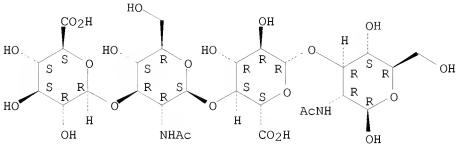
IT *67007-54-9P* *474639-79-7P* *474639-82-2P* *474639-84-4P* *474639-86-6P* *474639-89-9P*
RL: PUR (Purification or recovery); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(preparation, purification, and characterization of hyaluronan oligosaccharides

via testicular hyaluronidase digestion and anion exchange chromatog.)

RN 67007-54-9 CAPLUS

CN β-D-Glucopyranose, O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-2-(acetylamino)-2-deoxy- (CA INDEX NAME)

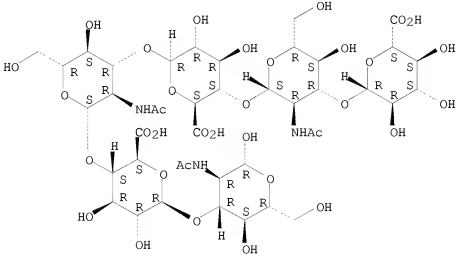
Absolute stereochemistry.



RN 474639-79-7 CAPLUS

CN β-D-Glucopyranose, O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-2-(acetylamino)-2-deoxy- (CA INDEX NAME)

Absolute stereochemistry.

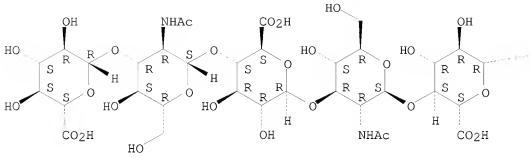


RN 474639-82-2 CAPLUS

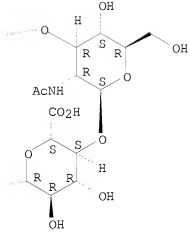
CN β-D-Glucopyranose, O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-2-(acetylamino)-2-deoxy- (CA INDEX NAME)

Absolute stereochemistry.

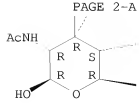
PAGE 1-A



PAGE 1-B

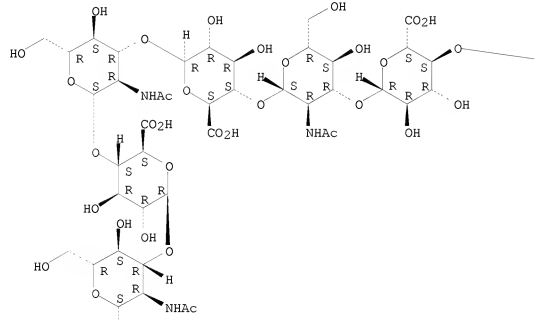


PAGE 2-A

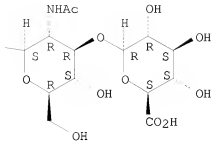


RN 474639-84-4 CAPLUS
CN β-D-Glucopyranose, O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-2-(acetylamino)-2-deoxy- (CA INDEX NAME)

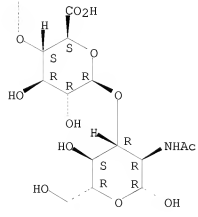
Absolute stereochemistry.



PAGE 1-B



PAGE 2-A

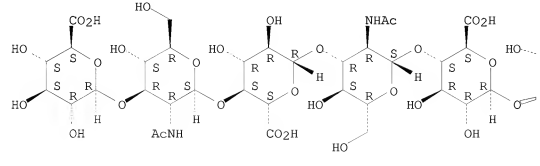


RN 474639-86-6 CAPLUS

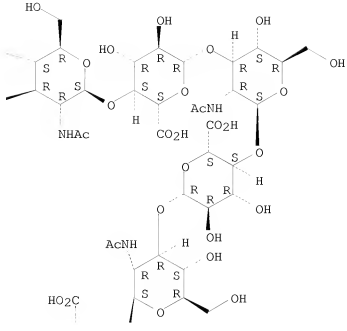
CN β-D-Glucopyranose, [O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)]5-O-β-D-glucopyranuronosyl-(1→3)-2-(acetylamino)-2-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

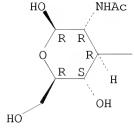
PAGE 1-A



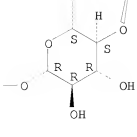
PAGE 1-B



PAGE 2-A



PAGE 2-B



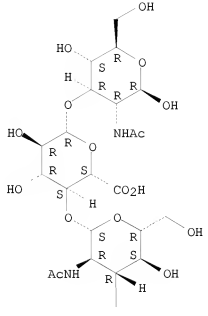
RN 474639-89-9 CAPLUS

CN β-D-Glucopyranose, [O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)]6-O-β-D-glucopyranuronosyl-(1→3)-2-(acetylamino)-2-deoxy- (9CI) (CA INDEX

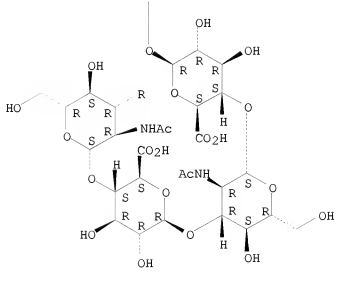
NAME)

Absolute stereochemistry.

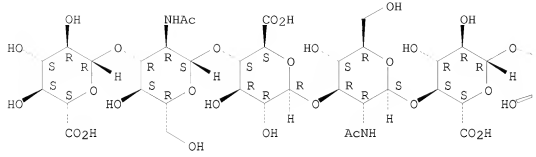
PAGE 1-A



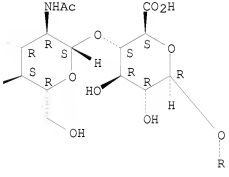
PAGE 2-A



PAGE 3-A



PAGE 3-B



REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 4 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2002:239677 CAPLUS
DOCUMENT NUMBER: 137:165230
TITLE: Domain structure of chondroitin sulfate E octasaccharides *binding* to type V collagen
AUTHOR(S): Takagaki, Keiichi; Munakata, Hidekazu; Kakizaki, Ikuko; Iwafune, Mito; Itabashi, Taito; Endo, Masahiko
CORPORATE SOURCE: Department of Biochemistry, Hirosaki University School of Medicine, Hirosaki, 036-8562, Japan
SOURCE: Journal of Biological Chemistry (*2002*), 277(11), 8882-8889
CODEN: JBCHA3; ISSN: 0021-9258
PUBLISHER: American Society for Biochemistry and Molecular Biology
DOCUMENT TYPE: Journal
LANGUAGE: English

AB We demonstrated previously that chondroitin sulfate E (ChS-E) *binds* to type V collagen. In this study, we investigated the structure and *binding* of ChS-E oligosaccharides. Eleven oligosaccharides were isolated from ChS-E by gel filtration chromatog. and anion-exchange high performance liquid chromatog. after hydrolysis with testicular hyaluronidase. Sep., seven oligosaccharides were custom synthesized using the transglycosylation reaction of testicular hyaluronidase. Structural anal. was performed by enzymic digestions in conjunction with high performance liquid chromatog. and mass spectrometry.

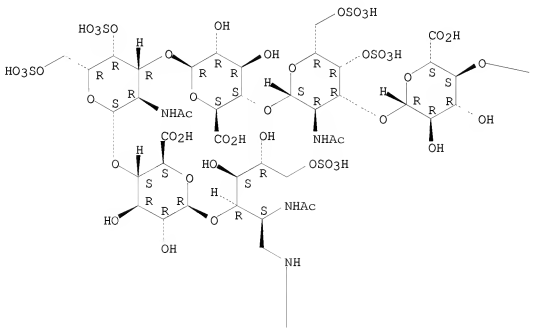
This library of 18 oligosaccharides was used as a source of model mols. to clarify the structural requirements for *binding* to type V collagen. *Binding* was analyzed by a biosensor based on surface plasmon resonance. The results indicated that to *bind* to type V collagen the oligosaccharides must have the following carbohydrate structures: (1) octasaccharide or larger in size; (2) a continuous sequence of three GlcAβ1-3GalNAc(4S,6S) units; (3) a GlcAβ1-3GalNAc(4S,6S) unit, GlcAβ1-3GalNAc(4S) unit or GlcAβ1-3GalNAc(6S) unit at the reducing terminal; (4) a GlcAβ1-3GalNAc(4S,6S) unit at the nonreducing terminal. It is likely that these characteristic oligosaccharide sequences play key roles in cell adhesion and extracellular matrix assembly.

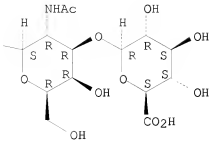
IT *448949-97-1P* *448950-00-3P* *448950-01-4P*
RL: BPN (Biosynthetic preparation); PRP (Properties); BIOL (Biological study); PREP (Preparation)
(chondroitin sulfate E-related oligosaccharides address structural requirements for *binding* to type V collagen)

RN 448949-97-1 CAPLUS

CN D-Galactitol, O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-galactopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-4,6-di-O-sulfo-β-D-galactopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-4,6-di-O-sulfo-β-D-galactopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-2-(acetylamino)-1,2-dideoxy-1-(2-pyridinylamino)-, 6-(hydrogen sulfate) (CA INDEX NAME)

Absolute stereochemistry.



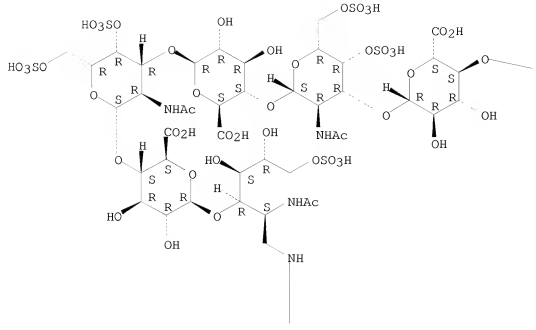


RN 448950-00-3 CAPLUS

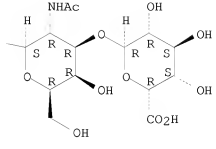
CN D-Galactitol, O-α-L-idopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-galactopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-4,6-di-O-sulfo-β-D-galactopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-4,6-di-O-sulfo-β-D-galactopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-2-(acetylamino)-1,2-dideoxy-1-(2-pyridinylamino)-, 6-(hydrogen sulfate) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



PAGE 2-A

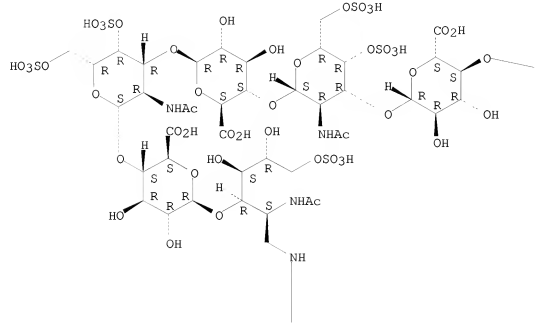
RN 448950-01-4 CAPLUS

CN D-Galactitol, O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-4,6-di-O-sulfo-β-D-galactopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-4,6-di-O-sulfo-β-D-galactopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-2-(acetylamino)-

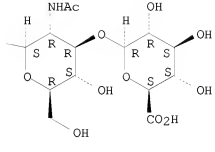
1,2-dideoxy-1-(2-pyridinylamino)-, 6-(hydrogen sulfate) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



PAGE 2-A

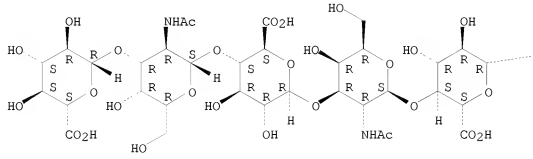
IT *101205-01-0*
RL: PRP (Properties)
(chondroitin sulfate E-related oligosaccharides address structural requirements for *binding* to type V collagen)

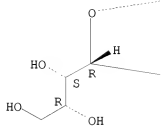
RN 101205-01-0 CAPLUS

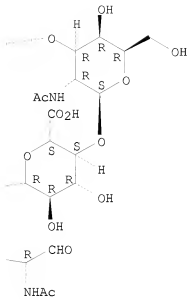
CN D-Galactose, O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-galactopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-galactopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-galactopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-2-(acetylamino)-2-deoxy- (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A







REFERENCE COUNT: 50 THERE ARE 50 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 5 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2001:68553 CAPLUS
DOCUMENT NUMBER: 134:262794
TITLE: Active Site of Chondroitin AC Lyase Revealed by the Structure of Enzyme-Oligosaccharide Complexes and Mutagenesis
AUTHOR(S): Huang, Weijun; Boju, Lorena; Tkalec, Lydia; Su, Hongsheng; Yang, Hyun-Ok; Gunay, Nur Sibel; Linhardt, Robert J.; Kim, Yeong Shik; Matte, Allan; Cygler, Miroslaw
CORPORATE SOURCE: Biotechnology Research Institute, Montreal, QC, H4P 2R2, Can.
SOURCE: Biochemistry (*2001*), 40(8), 2359-2372
CODEN: BICHAW; ISSN: 0006-2960
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The crystal structures of Flavobacterium heparinium chondroitin AC lyase (chondroitinase AC; E.C. 4.2.2.5) bound to dermatan sulfate hexasaccharide (DShexa), tetrasaccharide (DStetra), and hyaluronic acid tetrasaccharide (HAtetra) have been refined at 2.0, 2.0, and 2.1 Å resolution, resp. The structure of the Tyr234Phe mutant of AC lyase bound to a chondroitin sulfate tetrasaccharide (CStetra) has also been determined to 2.3 Å resolution For each of these complexes, four (DShexa and CStetra) or two (DStetra and HAtetra) ordered sugars are visible in electron d. maps. The lyase AC DShexa and CStetra complexes reveal *binding* at four subsites, −2, −1, +1, and +2, within a narrow and shallow protein channel. We suggest that subsites −2 and −1 together represent the substrate recognition area, +1 is the catalytic subsite and +1 and +2 together represent the product release area. The putative catalytic site is located between the substrate recognition area and the product release

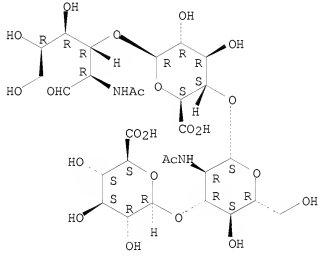
area, carrying out catalysis at the +1 subsite. Four residues near the catalytic site, His225, Tyr234, Arg288, and Glu371 together form a catalytic tetrad. The mutations His225Ala, Tyr234Phe, Arg288Ala, and Arg292Ala, revealed residual activity for only the Arg292Ala mutant. Structural data indicate that Arg292 is primarily involved in recognition of the N-acetyl and sulfate moieties of galactosamine, but does not participate directly in catalysis. Candidates for the general base, removing the proton attached to C-5 of the glucuronic acid at the +1 subsite, are Tyr234, which could be transiently deprotonated during catalysis, or His225. Tyrosine 234 is a candidate to protonate the leaving group. Arginine 288 likely contributes to charge neutralization and stabilization of the enolate anion intermediate during catalysis.

IT *57282-61-8D*, chondroitin AC lyase complex *151722-08-6D*, chondroitin AC lyase complex
RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); PROC (Process)
(active site of chondroitin AC lyase revealed by structure of enzyme-oligosaccharide complexes and mutagenesis)

RN 57282-61-8 CAPLUS

CN D-Glucose, O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-2-(acetylamino)-2-deoxy- (CA INDEX NAME)

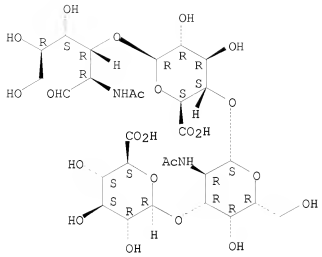
Absolute stereochemistry.



RN 151722-08-6 CAPLUS

CN D-Galactose, O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-galactopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-2-(acetylamino)-2-deoxy- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 56 THERE ARE 56 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 6 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1993:536299 CAPLUS
DOCUMENT NUMBER: 119:136299
ORIGINAL REFERENCE NO.: 119:24389a,24392a
TITLE: Effects of exogenous hyaluronic acid and serum on matrix organization and stability in the mouse cumulus cell-oocyte complex
AUTHOR(S): Camaioni, Antonella; Hascall, Vincent C.; Yanagishita, Masaki; Salustri, Antonietta
CORPORATE SOURCE: Bone Res. Branch, Natl. Inst. Dent. Res., Bethesda, MD, 20892, USA
SOURCE: Journal of Biological Chemistry (*1993*), 268(27), 20473-81
CODEN: JBCHA3; ISSN: 0021-9258
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Compact cumulus cell-oocyte complexes (COCs) isolated from preovulatory mouse follicles undergo expansion in vitro when high levels of hyaluronic acid (HA) are synthesized and organized into an extracellular matrix. The authors studied the effects of fetal bovine serum (FBS) and of exogenous HA and HA-oligomers on the expansion process. Maximum retention of HA in the COC matrix, and hence complete COC expansion, occurs when 1% FBS is continuously present during the 1st 18 h of culture. Irresp. of the culture time, HA synthesized when serum is absent is primarily in the medium, whereas HA synthesized when serum is present is primarily in the cell matrix. These findings support the hypothesis that the serum factor, identified as an inter-α-trypsin inhibitor by L. Chen et al. (1992), is a structural component of the matrix. Addition of exogenous HA or of HA oligomers of decasaccharide size (GlcUA-GlcNAc)5 or larger effectively displaces endogenously synthesized HA from the matrix into the medium, thereby preventing COC expansion. Addition of exogenous chondroitin sulfate affects neither matrix organization nor COC expansion, thus indicating specificity of the *binding* of some structural component(s) to HA. Fully expanded COCs disassemble when cultured >18 h, a process which occurs also in vivo and which correlates with loss of oocyte fertilizability both in vivo and in vitro. This process involves release

of macromol. HA from the matrix into the medium, with loss of 50% of the HA in the 1st 8 h of incubation after full expansion. The release is not facilitated when HA oligomers, long enough to prevent matrix formation, are added to the culture medium after the COCs are fully expanded. This suggests that cooperative *binding* to HA of either the serum factor, an endogenously synthesized factor(s), or both is required to stabilize the fully expanded COC matrix.

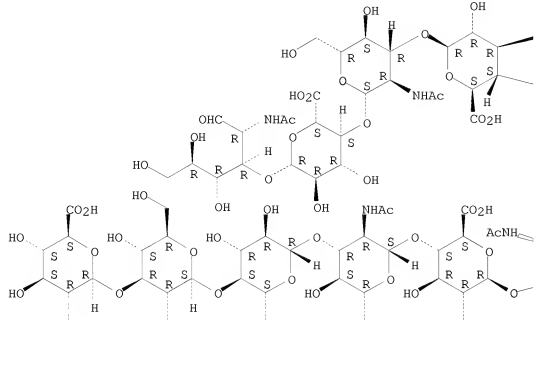
IT *57282-62-9*
RL: BIOL (Biological study)
(extracellular matrix organization and stability in cumulus cell-oocyte complex response to, blood serum effect on)

RN 57282-62-9 CAPLUS

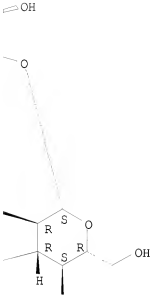
CN D-Glucose, O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy- (CA INDEX NAME)

Absolute stereochemistry.

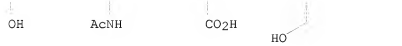
PAGE 1-A



PAGE 1-B



PAGE 2-A



PAGE 2-B

L8 ANSWER 7 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1986:144401 CAPLUS
DOCUMENT NUMBER: 104:144401
ORIGINAL REFERENCE NO.: 104:22743a,22746a
TITLE: Purification and characterization of a 3'-phosphoadenylylsulfate:chondroitin 6-sulfotransferase from arterial tissue
AUTHOR(S): Hollmann, Juergen; Niemann, Reinhard; Buddecke, Eckhart
CORPORATE SOURCE: Inst. Physiol. Chem., Univ. Muenster, Muenster, D-4400, Fed. Rep. Ger.
SOURCE: Biological Chemistry Hoppe-Seyler (*1986*), 367(1), 5-13
CODEN: BCHSEI; ISSN: 0177-3593
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A 3'-phosphoadenylylsulfate:chondroitin sulfotransferase (EC 2.8.2.5) was

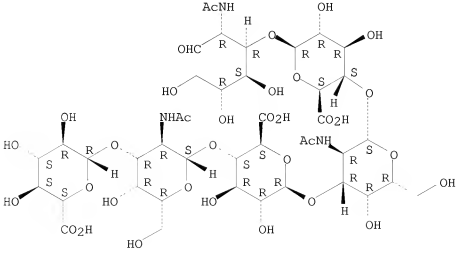
purified to homogeneity (.apprx.760-fold) from the cytosolic fraction of calf arterial tissue by Con A-Sepharose, ion-exchange, and affinity chromatog. The enzyme has a mol. mass of 38,000 daltons, optimal activity at pH 6.0 (100%) and 7.25 (75%), requires divalent cations for maximum activity ($Mn^{2+} \geq Mg^{2+}$, Ca^{2+}), and exhibits specificity towards desulfated chondroitin sulfate and oligosaccharides derived therefrom. The enzyme transfers sulfate groups from [35S]phosphoadenylylsulfate exclusively to C-6 OH groups of N-acetylgalactosamine units of the acceptor substrates. Maximum sulfate transfer occurs at 2 mM chondroitin disaccharide units (100%), the transfer rates decreasing with decreasing chain length in the order deca- (55%), octa- (17%), and hexasaccharides (4%). Lineweaver-Burk plots revealed equal maximum velocities for chondroitin and deca-, octa-, and hexasaccharides, but decreasing Km values. Chondroitin 4-sulfate has 21% of the acceptor potency exhibited by chondroitin, whereas dermatan sulfate, heparan sulfate, hyaluronate, and the chondroitin tetrasaccharide showed no acceptor properties. Anal. of the reaction products formed by prolonged enzymic sulfation of a reduced chondroitin hexasaccharide [GlcA-GalNAc]2-GlcA-GalNAc-ol revealed that the preterminal N-acetylgalactosamine from the nonreducing end and the internal N-acetylgalactosamine, but not the N-acetylgalactosaminitol, were sulfated and that no hexasaccharide disulfate was formed by the action of chondroitin 6-sulfotransferase. Chondroitin 6-sulfotransferase is considered to possess a ***binding*** region capable of accommodating a nonsulfated oligosaccharide sequence of ≥6 sugars and is believed to act in the course of chondroitin sulfate synthesis in cooperation with, but shortly after, the enzymes involved in the chain elongation reaction.

IT *73603-40-4* *101205-01-0* *101312-53-2* *101312-54-3*
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with chondroitin 6-sulfotransferase of artery, kinetics of)

RN 73603-40-4 CAPLUS

CN D-Galactose, O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-galactopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-galactopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-2-(acetylamino)-2-deoxy- (CA INDEX NAME)

Absolute stereochemistry.

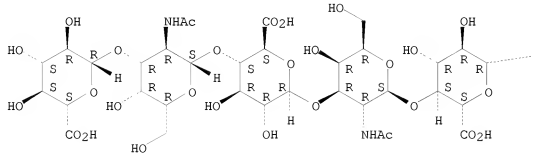


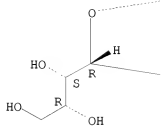
RN 101205-01-0 CAPLUS

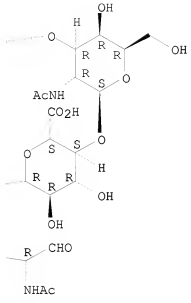
CN D-Galactose, O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-galactopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-galactopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-galactopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-2-(acetylamino)-2-deoxy- (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

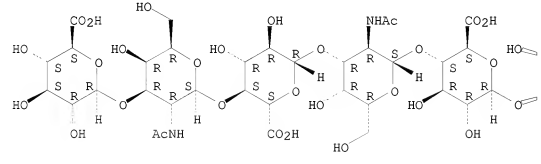




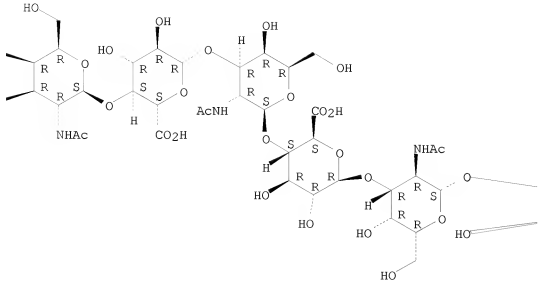


RN 101312-53-2 CAPLUS
CN D-Galactose, O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-galactopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-galactopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-galactopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranuronosyl-(1→3)-2-(acetylamino)-2-deoxy- (9CI) (CA INDEX NAME)

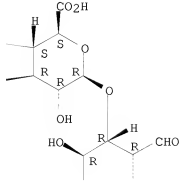
Absolute stereochemistry.



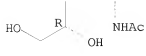
PAGE 1-B



PAGE 1-C



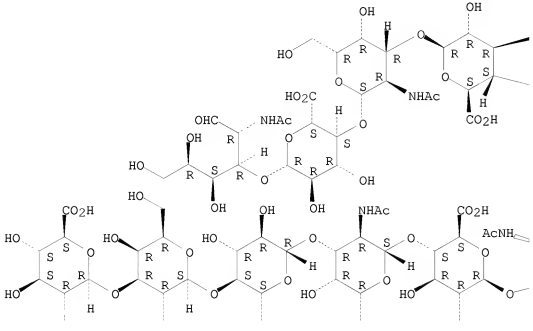
PAGE 2-C



RN 101312-54-3 CAPLUS

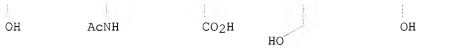
CN D-Galactose, O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-galactopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-galactopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-galactopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-2-(acetylamino)-2-deoxy- (CA INDEX NAME)

Absolute stereochemistry.



PAGE 1-B

PAGE 2-A



PAGE 2-B

L8 ANSWER 8 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1985:483726 CAPLUS
DOCUMENT NUMBER: 103:83726
ORIGINAL REFERENCE NO.: 103:13405a,13408a
TITLE: Interaction of hyaluronectin with hyaluronic acid oligosaccharides
AUTHOR(S): Bertrand, Philippe; Delpech, Bertrand
CORPORATE SOURCE: Lab. Immunochim., Cent. Henri Becquerel, Rouen, 76000, Fr.
SOURCE: Journal of Neurochemistry (*1985*), 45(2), 434-9
CODEN: JONRA9; ISSN: 0022-3042
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Hyaluronic acid was digested by bovine testicular hyaluronidase, and oligomers were fractionated by gel permeation using AcA 202 Ultrogel, an acrylamide-agarose matrix. Oligosaccharides composed of 2-6 disaccharide repeating units were isolated. Two nonasaccharides were prepared by enzymic

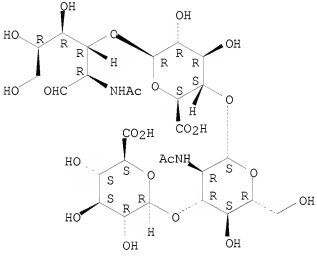
or chemical modification of the decasaccharide. Oligosaccharides were compared (by competitive inhibition of the ELISA for their ability to inhibit the interaction of hyaluronectin (a hyaluronic acid-*binding* brain glycoprotein) with hyaluronic acid. Among these oligosaccharides, decasaccharides were the smallest fragments that strongly inhibited the interaction. Octasaccharides inhibited with 700-fold lower affinity than desasaccharides. Dodecascaccharides had the same effect as decasaccharides. Nonasaccharides obtained by β-glucuronidase splitting of decasaccharides inhibited the interaction more than nonasaccharides prepared by alkaline treatment.

IT *57282-61-8* *57282-62-9* *57323-42-9*
57323-43-0 *71058-13-4* *71058-16-7*
RL: BIOL (Biological study)
(hyaluronectin of brain interaction with)

RN 57282-61-8 CAPLUS

CN D-Glucose, O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-2-(acetylamino)-2-deoxy- (CA INDEX NAME)

Absolute stereochemistry.

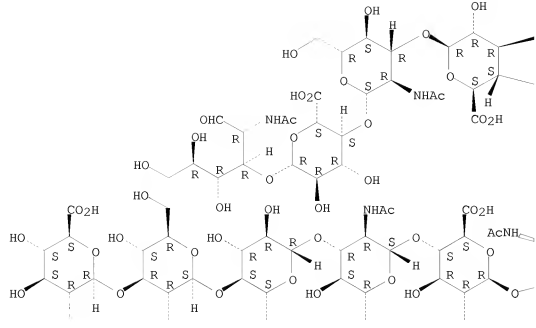


RN 57282-62-9 CAPLUS

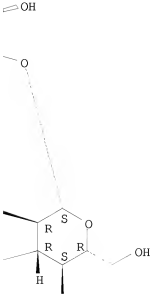
CN D-Glucose, O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-2-(acetylamino)-2-deoxy- (CA INDEX NAME)

Absolute stereochemistry.

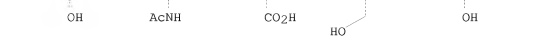
PAGE 1-A



PAGE 1-B



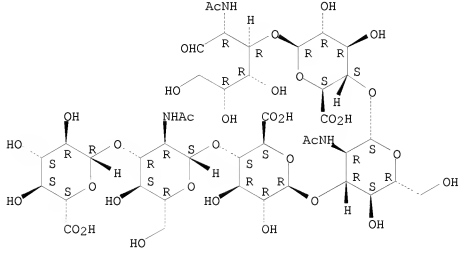
PAGE 2-A



OH

RN 57323-42-9 CAPLUS
CN D-Glucose, O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-β-D-glucopyranuronosyl-(1→3)-2-(acetylamino)-2-deoxy- (CA INDEX NAME)

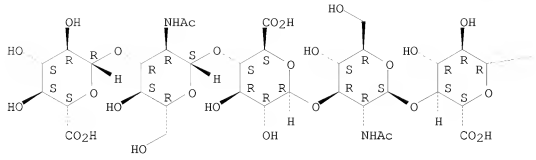
Absolute stereochemistry.

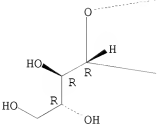


RN 57323-43-0 CAPLUS
CN D-Glucose, O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-2-(acetylamino)-2-deoxy- (CA INDEX NAME)

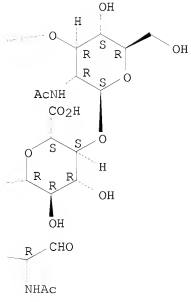
Absolute stereochemistry.

PAGE 1-A





PAGE 1-B

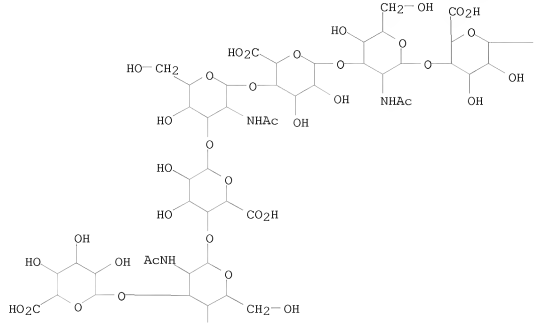


RN 71058-13-4 CAPLUS

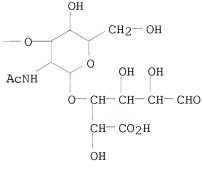
CN D-Glucuronic acid, O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-

glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



PAGE 2-A

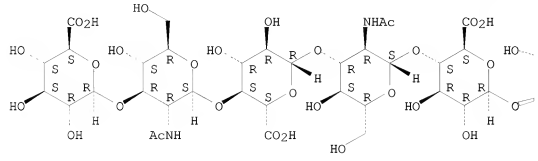
RN 71058-16-7 CAPLUS

CN D-Glucose, O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-

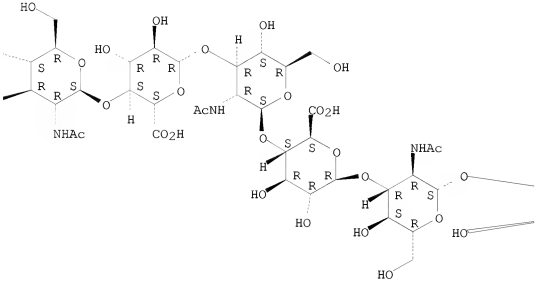
(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-2-(acetylamino)-2-deoxy- (CA INDEX NAME)

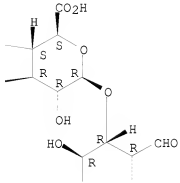
Absolute stereochemistry.

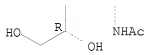
PAGE 1-A



PAGE 1-B







L8 ANSWER 9 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1985:43391 CAPLUS
DOCUMENT NUMBER: 102:43391
ORIGINAL REFERENCE NO.: 102:6791a,6794a
TITLE: Studies in vitro on the uptake and degradation of sodium hyaluronate in rat liver endothelial cells
AUTHOR(S): Smedsroed, Baard; Pertoft, Haakan; Eriksson, Sigbritt; Fraser, J. Robert E.; Laurent, Torvard C.
CORPORATE SOURCE: Dep. Med. Chem., Univ. Uppsala, Uppsala, S-751 23, Swed.
SOURCE: Biochemical Journal (*1984*), 223(3), 617-26
CODEN: BIJOAK; ISSN: 0306-3275
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Rat liver endothelial cells in primary cultures at 7° *bind* radioactively labeled Na hyaluronate (HA; mol weight 400,000) specifically and with high affinity (dissociation constant = 6 + 10-11M). Maximum *binding* capacity is .apprx.104 mols./cell. Inhibition expts. with unlabeled HA and oligosaccharides from HA indicate that each mol. is bound by several receptors acting cooperatively and that the single receptor recognizes a tetra- or hexasaccharide sequence of the polysaccharide. At 37° the liver endothelial cells endocytose the HA. The process combines the features of a receptor-mediated and a fluid-phase endocytosis. The rate of internalization does not show any saturation with

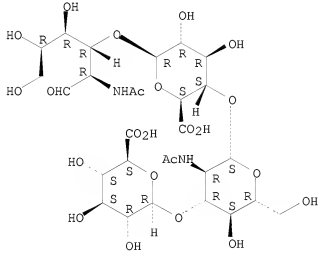
increasing HA concentration, but is approx. proportional to the polysaccharide concentration at and above the physiol. concentration At 50 μg free HA/L each liver endothelial cell accumulates 0.1 fg of the polysaccharide/min. Fluorescent HA accumulates in perinuclear granules, presumably lysosomes. Degradation products from HA appear in the medium .apprx.30 min after addition of the polysaccharide to the cultures. The radioactivity from HA containing N-[3H]acetyl groups or 14C in the sugar rings is recovered mainly as [3H]acetate and [14C]lactate, resp. Estns. of the capacity of liver endothelial cells to internalize and degrade HA in vitro indicate that these cells may be primarily responsible for the clearance of HA from human blood in vivo.

IT *57282-61-8* *57282-62-9* *57323-42-9* *57323-43-0* *93957-10-9* *93957-11-0*
RL: BIOL (Biological study)
(hyaluronate endocytosis and metabolism by liver endothelial cells inhibition by)

RN 57282-61-8 CAPLUS

CN D-Glucose, O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-2-(acetylamino)-2-deoxy- (CA INDEX NAME)

Absolute stereochemistry.

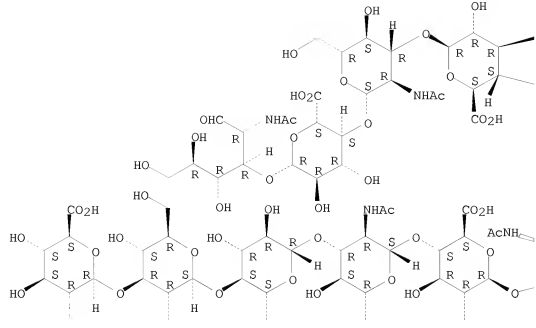


RN 57282-62-9 CAPLUS

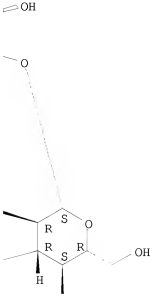
CN D-Glucose, O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-2-(acetylamino)-2-deoxy- (CA INDEX NAME)

Absolute stereochemistry.

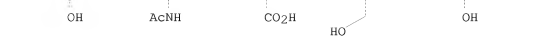
PAGE 1-A



PAGE 1-B



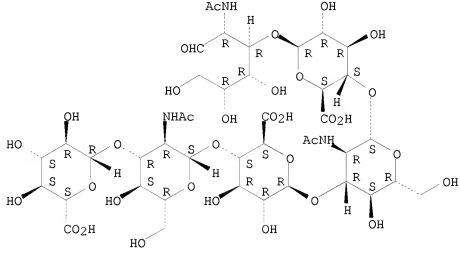
PAGE 2-A



OH

RN 57323-42-9 CAPLUS
CN D-Glucose, O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-β-D-glucopyranuronosyl-(1→3)-2-(acetylamino)-2-deoxy- (CA INDEX NAME)

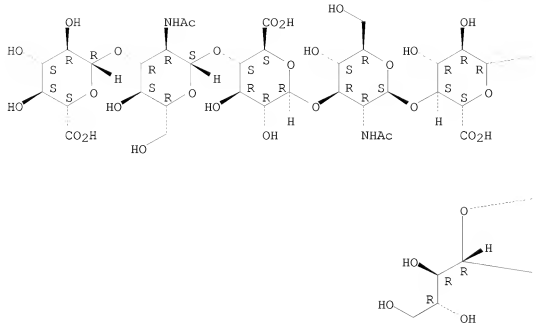
Absolute stereochemistry.



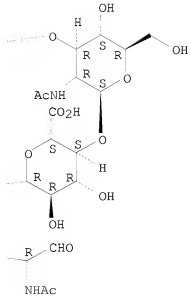
RN 57323-43-0 CAPLUS
CN D-Glucose, O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-2-(acetylamino)-2-deoxy- (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



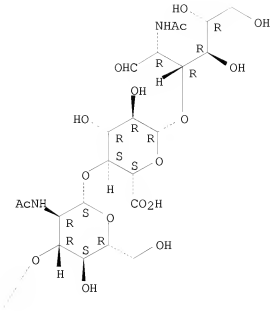
RN 93957-10-9 CAPLUS

CN D-Glucose, O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-

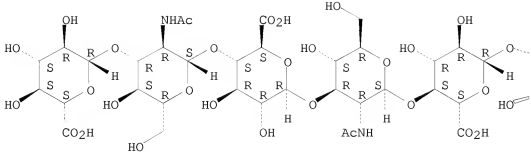
(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-
(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-
2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-
(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-
(1→4)-O-β-D-glucopyranuronosyl-(1→3)-2-(acetylamino)-2-
deoxy- (CA INDEX NAME)

Absolute stereochemistry.

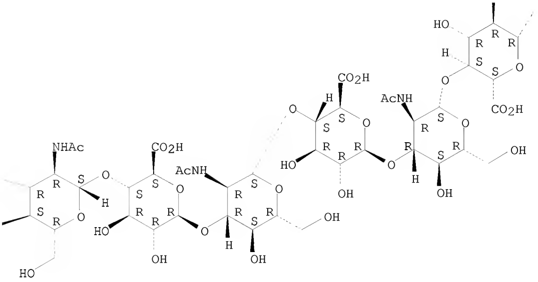
PAGE 1-C



PAGE 2-A



PAGE 2-B



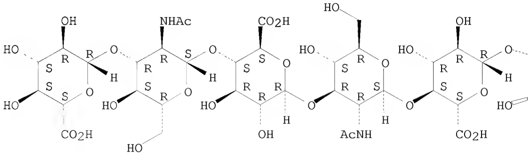
PAGE 2-C

RN 93957-11-0 CAPLUS

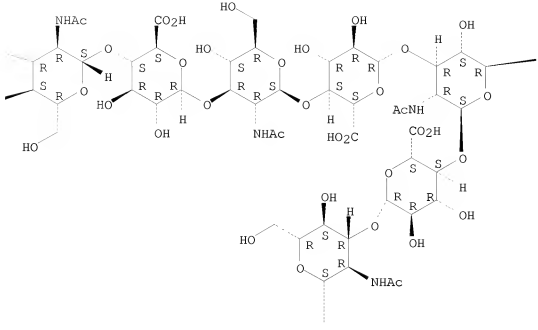
CN D-Glucose, O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-2-(acetylamino)-2-deoxy- (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

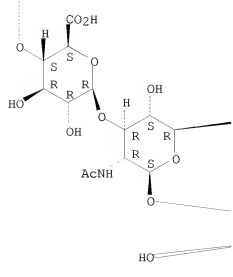


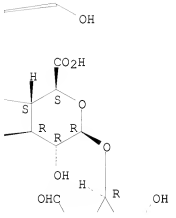
PAGE 1-B

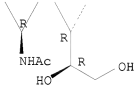


PAGE 1-C

PAGE 2-B







L8 ANSWER 10 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1979:485843 CAPLUS
DOCUMENT NUMBER: 91:85843
ORIGINAL REFERENCE NO.: 91:13839a,13842a
TITLE: Interactions of cartilage proteoglycans with hyaluronate. Inhibition of the interaction by modified oligomers of hyaluronate
AUTHOR(S): Christner, James E.; Brown, Martin L.; Dziewiatkowski, Dominic D.
CORPORATE SOURCE: Dent. Res. Inst., Univ. Michigan, Ann Arbor, MI, 48109, USA
SOURCE: Journal of Biological Chemistry (*1979*), 254(11), 4624-30
CODEN: JBCHA3; ISSN: 0021-9258
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Oligomers of hyaluronic acid (I) were prepared by digestion of I from rooster combs with testicular hyaluronoglucosaminidase, leech head hyaluronoglucuronidase, and with hyaluronate lyase from Streptomyces hyalurolyticus). The oligomers were fractionated by gel permeation, using Sephadex G-50. Oligomers isolated after incubation of I with the

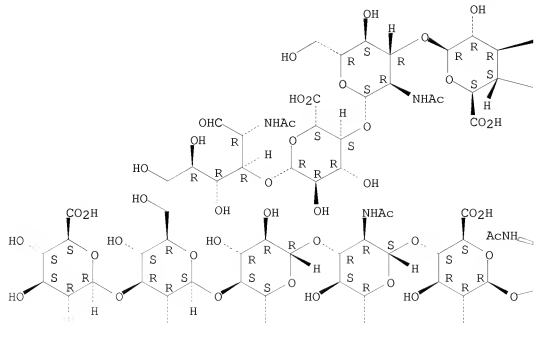
testicular enzyme were modified further. To prepare oligomers with N-acetylglucosamine at both ends, terminal nonreducing glucuronic acid residues were removed with β-glucuronidase. Reducing terminal N-acetylglucosamine residues were removed by reaction under mildly alkaline conditions. The reducing terminal N-acetylglucosamine residues also were reduced with NaBH4 to form N-acetylglucosaminitol. The potentials of the various oligosaccharides to *bind* to the proteoglycan from bovine nasal septum cartilage were estimated by determining their effectiveness as inhibitors of the proteoglycan-hyaluronate interaction. In order to *bind* maximally to the proteoglycan, the hyaluronate oligosaccharide must be ≥10 sugar residues in length and be terminated at the nonreducing and reducing ends with a glucuronate residue and an N-acetylglucosamine residue, resp. Sugar residues extended beyond this basic decasaccharide do not interact with the hyaluronate *binding* site on the proteoglycan.

IT *57282-62-9* *57323-43-0* *71058-10-1*
71058-11-2 *71058-13-4* *71058-14-5*
71058-16-7
RL: BIOL (Biological study)
(proteoglycans interaction with hyaluronate inhibition by)

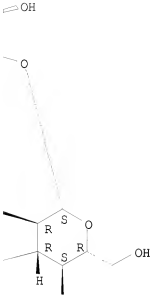
RN 57282-62-9 CAPLUS

CN D-Glucose, O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy- (CA INDEX NAME)

Absolute stereochemistry.



PAGE 1-B

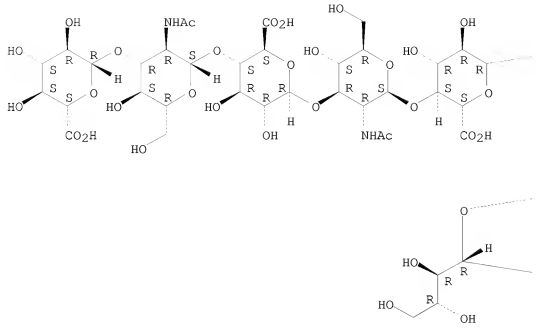


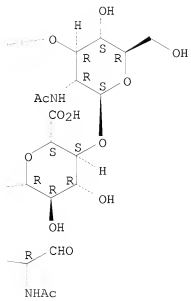
PAGE 2-A

PAGE 2-B

RN 57323-43-0 CAPLUS
CN D-Glucose, O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-2-(acetylamino)-2-deoxy- (CA INDEX NAME)

Absolute stereochemistry.



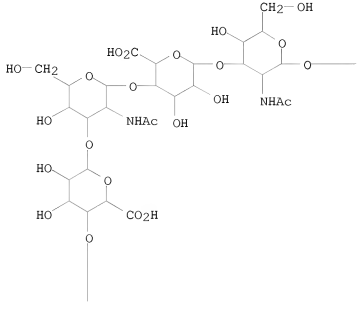


RN 71058-10-1 CAPLUS

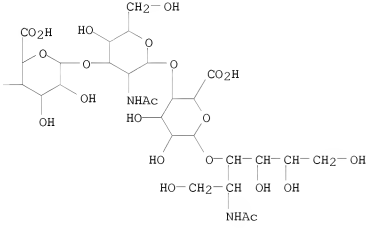
CN D-Glucitol, O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-

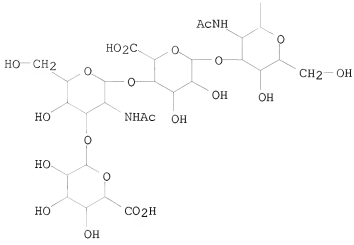
(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-
(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-
2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-
(1→3)-2-(acetylamino)-2-deoxy- (9CI) (CA INDEX NAME)

PAGE 1-A

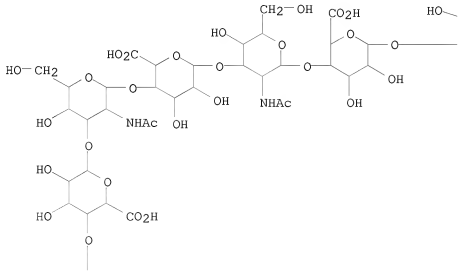


PAGE 1-B

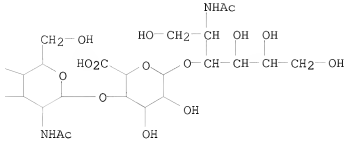




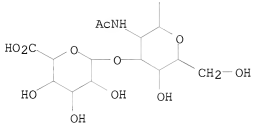
RN 71058-11-2 CAPLUS
CN D-Glucitol, O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-2-(acetylamino)-2-deoxy- (9CI) (CA INDEX NAME)



PAGE 1-B

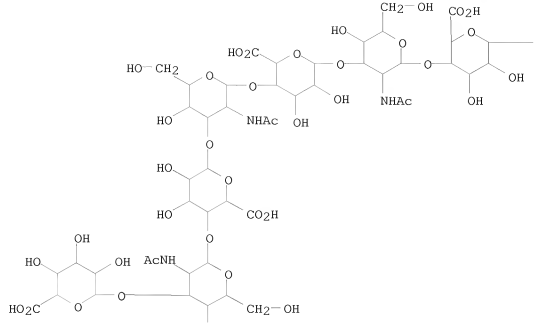


PAGE 2-A

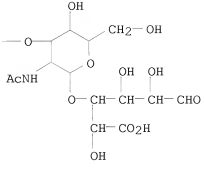


RN 71058-13-4 CAPLUS
CN D-Glucuronic acid, O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

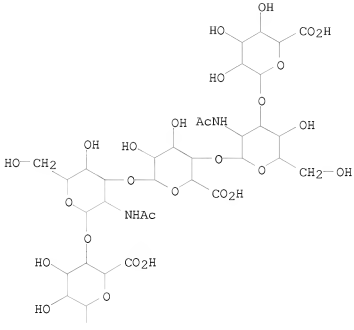


PAGE 2-A

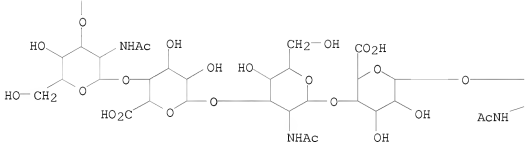
RN 71058-14-5 CAPLUS

CN D-Glucuronic acid, O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)- (9CI) (CA INDEX NAME)

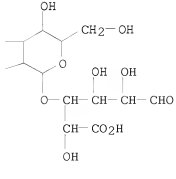
PAGE 1-A



PAGE 2-A



PAGE 2-B

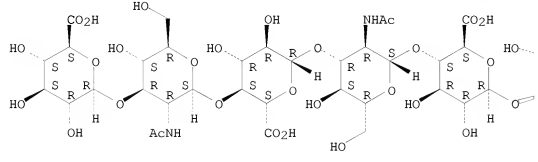


RN 71058-16-7 CAPLUS

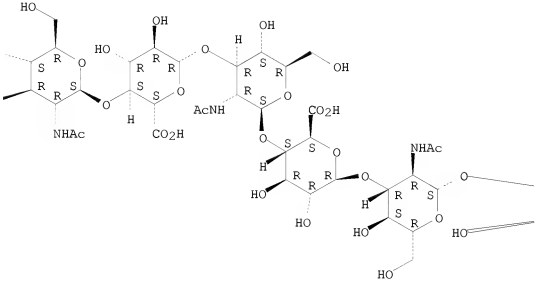
CN D-Glucose, O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-2-(acetylamino)-2-deoxy- (CA INDEX NAME)

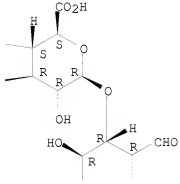
Absolute stereochemistry.

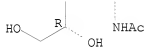
PAGE 1-A



PAGE 1-B







L8 ANSWER 11 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER:	1975:574710 CAPLUS
DOCUMENT NUMBER:	83:174710
ORIGINAL REFERENCE NO.:	83:27437a,27440a
TITLE:	Mechanism of action of bovine testicular hyaluronidase. Mapping of the active site
AUTHOR(S):	Highsmith, Stefan; Garvin, James H, Jr.; Chipman, David M.
CORPORATE SOURCE:	Dep. Biol., Ben-Gurion Univ. Negev, Beer Sheva, Israel
SOURCE:	Journal of Biological Chemistry (*1975*), 250(18), 7473-80 CODEN: JBCHA3; ISSN: 0021-9258
DOCUMENT TYPE:	Journal
LANGUAGE:	English

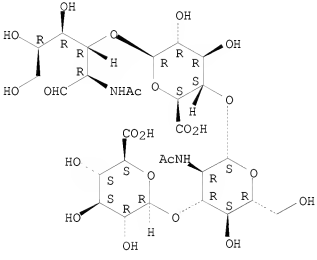
AB The reactions of purified, homogeneous bovine testicular hyaluronidase were studied with radioactively labeled oligomers of hyalobiuronic acid as substrates and acceptors. Transglycosylation occurred by transfer of a glycosyl residue with retention of configuration from a leaving group to an acceptor. On the basis of detailed examination of cleavage and transglycosylation patterns for the trimer; comparison of trimer, tetramer, and polymer as substrates; comparison of acceptors; equilibrium *binding*; and other data, it is proposed that the enzyme's active site consists of 5 subsites for hyalobiuronate residues. In the terminology of I. Schechter and A. Berger (1966), these are

s2-s1-s'1-s'2-s3, where the reducing terminus is to the right, and cleavage occurs between s1 and s'1. It is proposed that subsite s'2 has a high affinity for a substrate residue, whereas s1 and s'1 have low substrate affinity, and s2 and s'3 are intermediate in affinity. This proposal has mechanistic implications. The reactions of several substrates showed similar bell-shaped pH dependences, with optima in the region of pH 5-5.5.

IT *57282-61-8* *57282-62-9* *57282-64-1*
57282-65-2 *57323-42-9* *57323-43-0*
57323-44-1
RL: BIOL (Biological study)
(hyaluronidase reaction with, active site and mechanism in relation to)

RN 57282-61-8 CAPLUS
CN D-Glucose, O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-2-(acetylamino)-2-deoxy- (CA INDEX NAME)

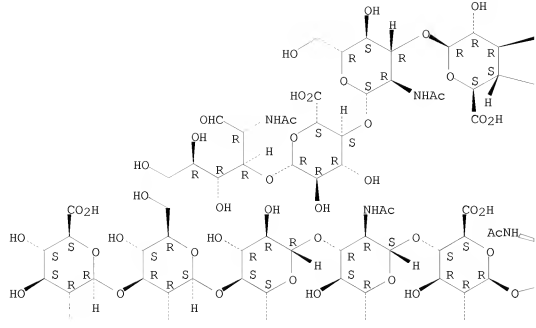
Absolute stereochemistry.



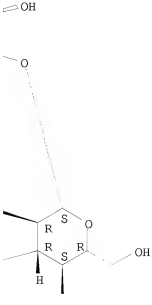
RN 57282-62-9 CAPLUS
CN D-Glucose, O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-2-(acetylamino)-2-deoxy- (CA INDEX NAME)

Absolute stereochemistry.

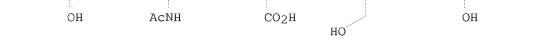
PAGE 1-A



PAGE 1-B

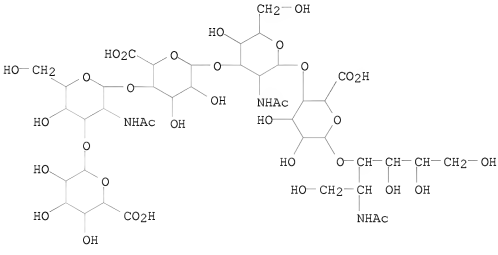


PAGE 2-A



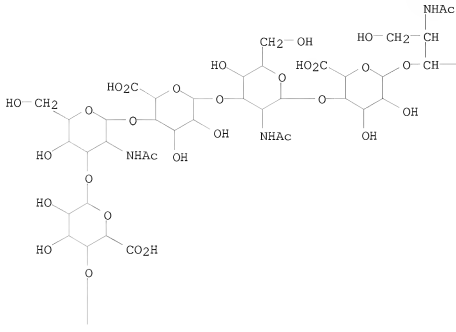
OH

RN 57282-64-1 CAPLUS
CN D-Glucitol, O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-2-(acetylamino)-2-deoxy- (9CI) (CA INDEX NAME)

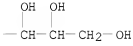


RN 57282-65-2 CAPLUS
CN D-Glucitol, O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-2-(acetylamino)-2-deoxy- (9CI) (CA INDEX NAME)

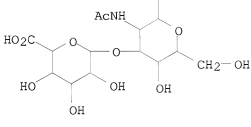
PAGE 1-A



PAGE 1-B

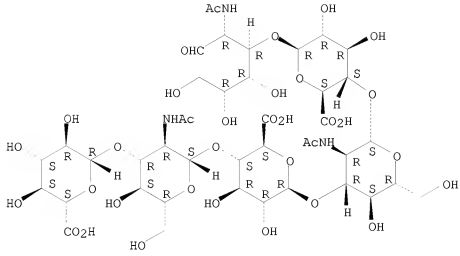


PAGE 2-A



RN 57323-42-9 CAPLUS
CN D-Glucose, O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-β-D-glucopyranuronosyl-(1→3)-2-(acetylamino)-2-deoxy- (CA INDEX NAME)

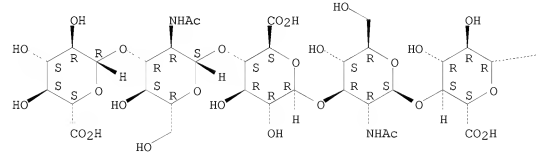
Absolute stereochemistry.

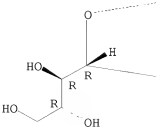


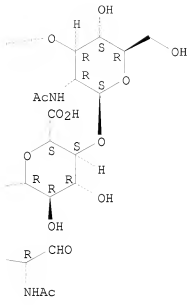
RN 57323-43-0 CAPLUS

CN D-Glucose, O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-2-(acetylamino)-2-deoxy- (CA INDEX NAME)

Absolute stereochemistry.

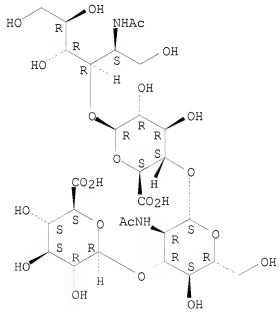






RN 57323-44-1 CAPLUS
CN D-Glucitol, O-β-D-glucopyranuronosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranuronosyl-(1→3)-2-(acetylamino)-2-deoxy- (CA INDEX NAME)

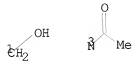
Absolute stereochemistry.

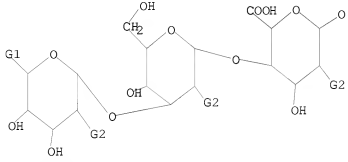


=> d his

(FILE 'HOME' ENTERED AT 13:06:36 ON 05 JAN 2009)

```
     FILE 'REGISTRY' ENTERED AT 13:06:49 ON 05 JAN 2009
L1              STRUCTURE UPLOADED
L2           49 S L1 SSS SAM
L3              STRUCTURE UPLOADED
L4           10 S L3 SSS SAM
L5          115 S L3 SSS FULL

     FILE 'CAPLUS' ENTERED AT 13:14:14 ON 05 JAN 2009
L6          101 S L5
L7           69 S L6 AND PY<=2003
L8           11 S L7 AND (PYLORI OR BIND?)

=> d l3
L3 HAS NO ANSWERS
L3                STR
```





G1 [@1],[@2]
G2 OH,[@3]

Structure attributes must be viewed using STN Express query preparation.

```
=> logoff hold
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                      ENTRY    SESSION
FULL ESTIMATED COST                                    69.76     257.30

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                      ENTRY    SESSION
CA SUBSCRIBER PRICE                                    -9.02      -9.02

 SESSION WILL BE HELD FOR 120 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 13:15:17 ON 05 JAN 2009

Connecting via Winsock to STN
```

```
Welcome to STN International!  Enter x:x

LOGINID:ssptajsl1623

PASSWORD:
  * * * * * * RECONNECTED TO STN INTERNATIONAL * * * * * *
SESSION RESUMED IN FILE 'CAPLUS' AT 14:23:47 ON 05 JAN 2009
FILE 'CAPLUS' ENTERED AT 14:23:47 ON 05 JAN 2009
COPYRIGHT (C) 2009 AMERICAN CHEMICAL SOCIETY (ACS)

COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     69.76     257.30

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                       ENTRY    SESSION
CA SUBSCRIBER PRICE                                     -9.02      -9.02

=> b reg
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     69.76     257.30

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                       ENTRY    SESSION
CA SUBSCRIBER PRICE                                     -9.02      -9.02

FILE 'REGISTRY' ENTERED AT 14:23:55 ON 05 JAN 2009
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2009 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES:    4 JAN 2009  HIGHEST RN 1092523-63-1
DICTIONARY FILE UPDATES:   4 JAN 2009  HIGHEST RN 1092523-63-1

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH July 5, 2008.

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document.  For information
on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=> e chondroitin
E1            1     CHONDROIDI/BI
E2            1     CHONDROIDINE/BI
```

```
E3        1003 --> CHONDROITIN/BI
E4          55     CHONDROITINASE/BI
E5          11     CHONDROITINSULFURIC/BI
E6           5     CHONDROITINUS/BI
E7          13     CHONDROL/BI
E8          12     CHONDROLECTIN/BI
E9           1     CHONDROLON/BI
E10          5     CHONDROME/BI
E11          5     CHONDROMEDI/BI
E12          5     CHONDROMEDIN/BI

=> e chondroitin/cn
E1           1     CHONDROGLYCURONIDASE/CN
E2           1     CHONDROIDINE/CN
E3           1 --> CHONDROITIN/CN
E4           1     CHONDROITIN .B.-GLUCURONYLTRANSFERASE (HUMAN)/CN
E5           1     CHONDROITIN B-ACETYLGALACTOSAMINYLTRANSFERASE/CN
E6           1     CHONDROITIN B-GLUCURONYLTRANSFERASE/CN
E7           1     CHONDROITIN B-GLUCURONYLTRANSFERASE (HUMAN)/CN
E8           1     CHONDROITIN B1,4 N-ACETYLGALACTOSAMINYLTRANSFERASE (HUM
                   AN MELANOMA G-361 CELL GENE CHGN-2 ISOENZYME 2)/CN
E9           1     CHONDROITIN B1,4 N-ACETYLGALACTOSAMINYLTRANSFERASE III
                   (HUMAN MELANOMA G-361 CELL GENE CHGN)/CN
E10          1     CHONDROITIN B1,4- N-ACETYLGALACTOSAMINYLTRANSFERASE/CN
E11          1     CHONDROITIN 2',4,6-TRISULFATE/CN
E12          1     CHONDROITIN 2',4-DISULFATE/CN

=> e
E13          1     CHONDROITIN 2',6-DISULFATE/CN
E14          1     CHONDROITIN 4,6-DISULFATE/CN
E15          1     CHONDROITIN 4,8-DISULFATE/CN
E16          1     CHONDROITIN 4-O-SULFOTRANSFERASE/CN
E17          1     CHONDROITIN 4-O-SULFOTRANSFERASE 2 (HUMAN CLONE MGC:10632 IM
                   AGE:3955396)/CN
E18          1     CHONDROITIN 4-O-SULFOTRANSFERASE SEQUENCE HOMOLOG (OIKOPLEUR
                   A DIOICA CLONE BACOIKO003-5XK14)/CN
E19          1     CHONDROITIN 4-SULFATASE/CN
E20          1     CHONDROITIN 4-SULFATE/CN
E21          1     CHONDROITIN 4-SULFATE A1-3(4)-N-ACETYLGALACTOSAMINYLTR
                   ANSFERASE/CN
E22          1     CHONDROITIN 4-SULFATE SODIUM SALT/CN
E23          1     CHONDROITIN 4-SULFATE TETRABUTYLAMMONIUM SALT/CN
E24          1     CHONDROITIN 4-SULFATE TETRAETHYLAMMONIUM SALT/CN

=> e
E25          1     CHONDROITIN 4-SULFATE TETRAMETHYLAMMONIUM SALT/CN
E26          1     CHONDROITIN 4-SULFATE TETRAPROPYLAMMONIUM SALT/CN
E27          1     CHONDROITIN 4-SULFOTRANSFERASE/CN
E28          1     CHONDROITIN 4-SULFOTRANSFERASE (HUMAN CLONE MGC:13319 IMAGE:
                   4042813)/CN
E29          1     CHONDROITIN 4-SULFOTRANSFERASE (HUMAN GENE C4ST)/CN
E30          1     CHONDROITIN 4-SULFOTRANSFERASE (MOUSE BRAIN)/CN
E31          1     CHONDROITIN 4-SULFOTRANSFERASE 2 (MOUSE STRAIN CZECH II CLON
                   E MGC:8034 IMAGE:3586766)/CN
E32          1     CHONDROITIN 4-SULFURIC ACID/CN
E33          1     CHONDROITIN 4/6-SULFATE/CN
E34          1     CHONDROITIN 6-O-SULFOTRANSFERASE/CN
E35          1     CHONDROITIN 6-SULFATASE/CN
E36          1     CHONDROITIN 6-SULFATE/CN
```

```
=> e
E37           1     CHONDROITIN 6-SULFATE METHYL ESTER/CN
E38           1     CHONDROITIN 6-SULFATE PENTASACCHARIDE B-GLUCURONYLTRANS
                    FERASE II/CN
E39           1     CHONDROITIN 6-SULFATE PENTASACCHARIDE GLUCURONOSYLTRANSFERAS
                    E/CN
E40           1     CHONDROITIN 6-SULFATE SODIUM SALT/CN
E41           1     CHONDROITIN 6-SULFATE-ETHYLENE GLYCOL DIGLYCIDYL ETHER COPOL
                    YMER/CN
E42           1     CHONDROITIN 6-SULFOTRANSFERASE/CN
E43           1     CHONDROITIN 6-SULFOTRANSFERASE (CHICKEN CLONE PCXNC6ST2)/CN
E44           1     CHONDROITIN 6-SULFOTRANSFERASE (HUMAN BRAIN)/CN
E45           1     CHONDROITIN 6-SULFOTRANSFERASE (TORPEDO CALIFORNICA GENE NSI
                    ST)/CN
E46           1     CHONDROITIN 6-SULFOTRANSFERASE/KERATAN SULFATE SULFOTRANSFER
                    ASE (HUMAN HUVEC CELL CLONE PCHST1 GENE CHST1 REDUCED)/CN
E47           1     CHONDROITIN 8-SULFATE/CN
E48           1     CHONDROITIN A SULFATE/CN

=> e
E49           1     CHONDROITIN ABC ELIMINASE/CN
E50           1     CHONDROITIN ABC ENDOLYASE/CN
E51           1     CHONDROITIN ABC LYASE. (YERSINIA PSEUDOTUBERCULOSIS STRAIN I
                    P32953)/CN
E52           1     CHONDROITIN AC ELIMINASE/CN
E53           1     CHONDROITIN AC LYASE/CN
E54           1     CHONDROITIN AC LYASE (ARTHROBACTER AURESCENS)/CN
E55           1     CHONDROITIN AC LYASE II/CN
E56           1     CHONDROITIN AC/ALGINATE LYASE (PSEUDOALTEROMONAS HALOPLANKTI
                    S STRAIN TAC125 GENE ALYLL)/CN
E57           1     CHONDROITIN ASCORBATE/CN
E58           1     CHONDROITIN B LYASE/CN
E59           1     CHONDROITIN BETA1,4 N-ACETYLGALACTOSAMINYLTRANSFERASE 2 (HUM
                    AN CLONE MGC:40204 IMAGE:5223190)/CN
E60           1     CHONDROITIN C LYASE/CN

=> s e3
L9            1 CHONDROITIN/CN

=> d l9

L9   ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2009 ACS on STN
RN   9007-27-6  REGISTRY
ED   Entered STN:  16 Nov 1984
CN   Chondroitin  (CA INDEX NAME)
MF   Unspecified
CI   PMS, COM, MAN
PCT  Manual registration
LC   STN Files:   ADISNEWS, AGRICOLA, ANABSTR, BIOSIS, BIOTECHNO, CA, CAPLUS,
       CASREACT, CBNB, CHEMCATS, CHEMLIST, CIN, EMBASE, HSDB*, IPA, MEDLINE,
       NAPRALERT, PIRA, PROMT, TOXCENTER, USPAT2, USPATFULL, USPATOLD
         (*File contains numerically searchable property data)
     Other Sources:   EINECS**
         (**Enter CHEMLIST File for up-to-date regulatory information)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**
```

```
            1285 REFERENCES IN FILE CA (1907 TO DATE)
             119 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
            1288 REFERENCES IN FILE CAPLUS (1907 TO DATE)


=> b caplus
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     7.88     265.18

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                       ENTRY    SESSION
CA SUBSCRIBER PRICE                                     0.00      -9.02

FILE 'CAPLUS' ENTERED AT 14:24:37 ON 05 JAN 2009
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2009 AMERICAN CHEMICAL SOCIETY (ACS)


Copyright of the articles to which records in this database refer is
held by the publishers listed in the PUBLISHER (PB) field (available
for records published or updated in Chemical Abstracts after December
26, 1996), unless otherwise indicated in the original publications.
The CA Lexicon is the copyrighted intellectual property of the
American Chemical Society and is provided to assist you in searching
databases on STN.  Any dissemination, distribution, copying, or storing
of this information, without the prior written consent of CAS, is
strictly prohibited.

FILE COVERS 1907 - 5 Jan 2009  VOL 150 ISS 2
FILE LAST UPDATED: 4 Jan 2009  (20090104/ED)

Caplus now includes complete International Patent Classification (IPC)
reclassification data for the third quarter of 2008.

Effective October 17, 2005, revised CAS Information Use Policies apply.
They are available for your review at:

http://www.cas.org/legal/infopolicy.html

=> s l9 and pylori
          1288 L9
         15806 PYLORI
            23 PYLORIS
         15819 PYLORI
                (PYLORI OR PYLORIS)
L10          4 L9 AND PYLORI

=> s l10 and py<=2003
      24034073 PY<=2003
L11          1 L10 AND PY<=2003

=> d l10 1-4 ibib abs

L10  ANSWER 1 OF 4  CAPLUS  COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER:         2008:1185477  CAPLUS
DOCUMENT NUMBER:          149:423733
```

TITLE: MHC-peptide complexes and MHC multimers for diagnosis, prognosis and therapy of cancer, allergy, immune or autoimmune disease, transplant rejection, infection and vaccine development
INVENTOR(S): Schoeller, Joergen; Pedersen, Henrik; Brix, Liselotte
PATENT ASSIGNEE(S): Dako Denmark A/S, Den.
SOURCE: PCT Int. Appl., 863pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2008116468	A2	20081002	WO 2008-DK118	20080326
WO 2008116468	A3	20081204		

W: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA

PRIORITY APPLN. INFO.:		
DK 2007-461	A	20070326
US 2007-907217P	P	20070326
DK 2007-972	A	20070703
DK 2007-973	A	20070703
DK 2007-974	A	20070703
DK 2007-975	A	20070703
US 2007-929581P	P	20070703
US 2007-929582P	P	20070703
US 2007-929583P	P	20070703
US 2007-929586P	P	20070703

AB Novel compds. carrying ligands capable of binding to counter receptors on relevant target cells are disclosed. The compds. possess a number of advantageous features, rendering them very suitable for a wide range of applications, including use as detection systems, detection of relevant target cells as well as a number of other methods. In particular, novel MHC complexes comprising one or more MHC mols. are disclosed. The affinity and specificity of the MHC-peptide complexes are surprisingly high. The possibility of presenting to the target cells a plurality of MHC-peptide complexes makes the MHC complexes according to the present invention an extremely powerful tool e.g. in the field of therapy and diagnosis. The invention generally relates to the field of therapy, including therapeutic methods and therapeutic compns. Also comprised by the present invention is the sample-mounted use of MHC complexes and MHC multimers.

L10 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2008:738393 CAPLUS
DOCUMENT NUMBER: 149:81578
TITLE: Polyvalent bioconjugates based on polysaccharides or mucopolysaccharides
INVENTOR(S): Natunen, Jari; Helin, Jari; Weikkolainen, Krista

PATENT ASSIGNEE(S): Glykos Finland Oy, Finland
SOURCE: PCT Int. Appl., 107pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2008071851	A1	20080619	WO 2007-FI50687	20071213

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: FI 2006-5800 A 20061213

AB The present invention is directed to conjugates for biorecognition comprising (i) an carbohydrate backbone structure (PO) of 5 to 20 monosaccharide units, (ii) oligosaccharide biorecognition groups (Bio) of 1 to 10 monomer units, (iii) a bifunctional spacer groups of the formula -(y)p - (S)q - (z)r -, wherein S is a spacer group, p, q and r are each 0 or 1, whereby at least one of p and r is different from 0, and y and z are chemoselective ligation groups, which covalently link a said Bio group to said backbone structure, and the degree of conjugation, indicating the average number of covalently attached Bio biorecognition groups per monomer unit of the backbone, being from 0.2 to 1. The invention is also directed to processes for their preparation, intermediates for use in the process as well as use of said conjugates, especially for inhibiting pathogenic bacteria.

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2007:1469388 CAPLUS
DOCUMENT NUMBER: 148:85733
TITLE: Transfer factor compositions and methods
INVENTOR(S): Ramaekers, Joseph C.
PATENT ASSIGNEE(S): Ramaekers Nutrition, LLC, USA
SOURCE: PCT Int. Appl., 45pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007149287	A2	20071227	WO 2007-US13903	20070614
WO 2007149287	A3	20081002		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG,

KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA

PRIORITY APPLN. INFO.: US 2006-814777P P 20060614
US 2006-834739P P 20060731
US 2007-762727 A 20070613

AB This invention relates to composition comprising transfer factor alone or combined with an antibody. The antibody may be contained in an antibody fraction. The transfer factor and/or the antibody or antibody fraction may be lyophilized. Also provided are formulations further comprising glucans, as well as addnl. optional components. Also provided are methods for making the compns. and formulations, as well as kits containing the compns. Methods of preventing and/or treating a condition in a subject using the comps. and/or formulations are also provided. Such conditions may include malignant and benign tumors.

L10 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2003:22694 CAPLUS
DOCUMENT NUMBER: 138:83382
TITLE: Polysaccharides with Helicobacter *pylori* receptor activity for treatment of gastric diseases
INVENTOR(S): Natunen, Jari; Miller-Podraza, Halina; Teneberg, Susann; Angstroem, Jonas; Karlsson, Karl-Anders
PATENT ASSIGNEE(S): Carbion Oy, Finland
SOURCE: PCT Int. Appl., 72 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003002128	A1	20030109	WO 2002-FI575	20020628
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
FI 2001001403	A	20021230	FI 2001-1403	20010629
WO 2002056893	A1	20020725	WO 2002-FI43	20020118
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

AU 2002352533 A1 20030303 AU 2002-352533 20020628
EP 1411953 A1 20040428 EP 2002-751213 20020628
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
JP 2004537538 T 20041216 JP 2003-508367 20020628
WO 2004065400 A1 20040805 WO 2004-FI27 20040120
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI
US 20040180850 A1 20040916 US 2004-482046 20040227
PRIORITY APPLN. INFO.: FI 2001-1403 A 20010629
WO 2002-FI43 A 20020118
FI 2001-118 A 20010119
WO 2002-FI575 W 20020628
WO 2003-FI39 A 20030120

AB The present invention relates to a composition comprising a polysaccharide with Helicobacter *pylori* receptor activity and, optionally, an oligosaccharide receptor of Helicobacter *pylori* or an analog or a derivative thereof and/or a gastric epithelium protecting compound for use in the treatment or prophylaxis of any condition due to the presence of Helicobacter *pylori*. Binding assays revealed the isoreceptors and specificity of binding of glycolipids such as Neu5Gcα3Galβ4GlcNAcβ3Galβ4GlcNAcβ3Galβ4Glc. beta.Cer.

REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> logoff hold

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	16.98	282.16
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-3.28	-12.30

SESSION WILL BE HELD FOR 120 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 14:25:15 ON 05 JAN 2009